THE TENNESSEE FARMER.

BY THOMAS EMMERSON, AT $1 PER ANNUM IN ADVANCE—OR $1 50 AT THE END OF THE YEAR.

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ANSWER TO ENQUIRIES.

WHITE MULBERRY SEED.—These, it is believed, can at present, be obtained in most of the seed stores in the Northern cities. The price, during the past year, has been high and very fluctuating, depending on the demand and supply, from 50 cents to $2 per ounce. We are not apprised of the price at the present, but it is presumed that an abundant supply of the present year's produce will have been provided, and that the price in future will be moderate. Cuttings and layers too will probably be obtained in future from the public nurseries, and from individuals throughout the country, both of the White and Chinese Mulberry, with much greater facility & on more moderate terms than heretofore, though the great demand will probably render the raising of them a profitable business, at least for some years to come. We would recommend to all who are desirous of commencing the silk business, to obtain at least a few cuttings, as soon as practicable, and from these, by diligent and careful attention to the directions which we have heretofore published, they will soon be able, not only to supply their own wants, but those of their neighbors.

HARROWS, &c.—In answer to a subscriber at Carthage, we have to refer him to a description of the Harrow and Cultivator in this Number. Having never seen a machine for sowing small seeds, we are unable to furnish him, at this time, with such a description of one as he requests—but will endeavor to do so hereafter.

We have heard nothing of late of Woodside's Revolving Harrow, but believe the use of it is becoming common to the Eastward, and that it is highly approved of.

We have heard nothing more of Peck's and Ashmore's Machine for gathering Clover Seed. We hope the inventors will give notice, through the public papers, of the extent of its use, and of the means by which it can be obtained in West Tennessee and elsewhere.

The only Threshing Machine we believe at present in use here, is Harmon's, which will cost for the machine alone, about $40, and for the house, gearing, &c., about $120. It will thresh 100 bushels of wheat per day, and of other grain in proportion, and is well calculated to get out clover and other grass seeds. Its advantages are very great to those who raise considerable crops of small grain and grass seed. From the cost, each farmer will be best enabled to judge, whether the extent of his crops will justify the expense.

With respect to Farm Buildings, so widely different is the situation of farmers, their crops, stocks, &c., that we are at a loss to give any description which would be suitable for any considerable number of persons. We shall hereafter endeavor to give such general directions on this subject, as may be calculated to aid each one, in devising a plan best suited to his own situation and circumstances.

We have heretofore published much on the subject of Lime, the value of which, as a manure, is immense—and we shall not cease to add, from time to time, as our space shall permit, such additional information as we shall deem most useful to those who may be disposed to resort to its use. We would not recommend its application to the wheat crop in the first instance; and in all cases, we would advise breaking up the land first, and then harrowing it in, so that it may be kept as near the surface as practicable. Though we do not deem it a complete substitute for plaster in all cases, yet, it will often be found greatly to assist the operation of that article, and in many cases, will render the use of it unnecessary.

In this country, Clover, if sown among small grain, will rarely admit of cutting, the first year. When the soil and season are such, as to produce a good crop, it may be cut—but we think it would be ordinarily found most advantageous to suffer the crop of the first year to remain on the land as a protection against the frosts of the first winter.

For permanent pasture, we would decidedly prefer the Orchard Grass to any other—or, if intended for pasture alone, without a design to save its seed, other grasses of a nutritive quality, may be mixed with it, excluding however the clovers, on account of their tendency to produce the slavering of horses, &c. We are not sufficiently acquainted with the strong weeds of the Cumberland bottoms, to be able to say whether the Orchard Grass would be able to subdue them—but from its durability and hardy nature, we should think, that if sown thick enough, two bushels to the acre, and once well set few weeds would be able successfully to encroach on it. It would be best however, as far as practicable, by good tillage, to destroy the weeds before sowing the Orchard Grass seed. It may be sown either early in the fall or spring.

Extract of a letter to the Editor from a gentleman in West Tennessee, dated,

JULY 25th, 1836.

DEAR SIR—I have received the Numbers of the Tennessee Farmer up to the present time, all of which I have read with great interest, and fully concluded in my own mind, that I was amply compensated for one year's subscription from reading your first Number on the subject of ploughing fallow land. Although I have been at-

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tempting to cultivate the soil for 25 years, I find I am deficient even in ploughing. The management of stock, the clover crop, rotation of crops, and more especially manuring, are subjects of vital importance to the farming interest, and I assure you that the banks of ashes that have remained from year to year around the ash-hoppers—and the manure piles that have remained near the stables as a nuisance, will, this ensuing winter, be all removed to the fields. Although these are circumstances I have always known to be right, yet the reading of your agricultural paper has had a tendency to stimulate me to action, and I am resolved to commence raising manure from corn stalks, straw, hay and lime, as far as I may have opportunity.

I am truly pleased to find many wholesome and interesting moral instructions, combined with agricultural instruction, for you know it is comparatively an easy matter to succeed, when you convince us that it is our interest as well as our duty, not to starve our slaves, work horses, oxen, and even our idle stock, but that the kindest treatment is the most profitable.

I find, that in one of your numbers, powdered Brimstone is recommended for such stock as chew the cud.—I have found, from experience, that all stock, especially hogs, and even horses, are much benefitted by the use of it—it destroys lice. I also use, to great advantage, powdered copperas, given in small quantities, mixed with salt, but often repeated, to destroy worms, from which hogs suffer much under the starving system.

I find you sometimes give a small space to receipts for certain cures. I would recommend the following:

REMEDY FOR ANY SWELLING, FEVERISH INFLAMMATION, FRESH CUT, OR BRUISE.

Make a poultice of the leaves of the common Sweet Potatoe, either green, or dried in a shade, (when fully grown is best,) and corn meal: let the leaves be boiled to pieces. It will frequently remove the inflammation and reduce the swelling in one night—but repeat, if necessary.

I have thought seriously of the silk culture, but am at a loss to know whether there would be a market for the raw material."

Note.—We return our thanks to our correspondent not only for his communication, but for his friendly aid in extending the circulation of the Farmer. He need be under no apprehension of not finding a market for the produce of silk-worms. As there is every reason to believe that the demand both for cocoons and raw silk will for many years to come, be such, as to render the growth of them a very profitable business, when carefully and properly attended to.—We would also earnestly recommend to him, and to all our readers, to commence immediately, the rearing of the Mulberry tree, especially of the Chinese Mulberry. The sale of the young trees for transplanting, will not only be a profitable business, but those who shall speedily prepare to supply the demand for them will render an important service to the country.—Editor.

To the Editor of the Tennessee Farmer:

Grant me space in your columns to communicate to the public the results of my experience in farming. I have been trying to farm for twenty years, nineteen of which, I persisted in my own course, unaided by agricultural papers or by any systematic rule; consequently my improvements were small. The last year I subscribed for the Tennessee Farmer, and searched, read and examined it, and other authors,—entirely turning my attention to *Book Farming:* and I freely acknowledge, that the improvements I have made during that period, have far exceeded those of the nineteen previous years; and I return you my sincere thanks for your aid—though I have not acquired all my knowledge from your paper alone, yet I have been materially benefitted by it, inasmuch as it begat in me a spirit of enterprise and a desire for improvement. As I have derived great benefit from the knowledge and experience of others, I think it my duty in return to furnish them with the results of my experience, soliciting an enlightened community to pursue an improved and systematic course of agriculture, assuring them, that they will find the profits resulting therefrom amply sufficient to compensate them for their labor and toil. I must, however, confine my remarks to a few only of my experiments.

In the year 1822, I purchased a farm of 354 acres, 125 of which was cleared. The land was once good second rate land, but was now completely worn out. "Being greatly indebted for my farm, the idea of improving the cleared land never entered into my mind; but I set to work opening fresh land, until I had enlarged my cleared land to 225 acres: this I continued to cultivate in corn, until a part of it was so far exhausted, that I could no longer cultivate this crop profitably.

In the spring of 1833, I planted two acres of my land in corn, (this two acres was about equal to the balance of my cleared land) on which I raised 20 bushels to the acre; the corn was worth 25 cents per bushel, amounting to $10; the cost of cultivating was $7, which left me a profit of $3. The following year it remained uncultivated. The next fall I sowed it in wheat. The following spring I hauled out ten tons of good stable manure, which I spread over one acre. At harvest I gathered from the two acres nineteen bushels of good wheat, which brought me the sum of $16, 62½. The cost of the crop, I estimated at $6, 62½. The manure say was worth $10, which brings the account out even. In the spring I sowed orchard grass and clover seed. The succeeding spring I sowed over the grass a quantity of plaster and ashes. The result was: from the manured acre I mowed 5 loads of hay; from the one not manured, I mowed 2 loads; each load was worth at least $5; consequently, the manured acre yielded me $25 worth of hay; the

unmanured acre only $10 worth. The cost of harvesting the manured acre was $1 50; plaster, &c., 50 cents, making $2. Profit, 5 loads of hay at $5 per load, $25, leaving a clear profit of $23 on the manured acre. The cost of harvesting the unmanured acre was 75 cents; plaster, &c., 50 cents; making $1 25. Profit, 2 loads of hay, at $5 per load, $10; clear profit on this acre only $8 75. Difference of profit in one year in favor of the manured acre, $14 25.

I have this year made three experiments in my wheat field to ascertain what kind of manure is best suited for wheat. I applied barn manure to one spot, barn manure and lime mixed on another spot, and on a third spot, I applied lime alone. I have tried other experiments with barn manure, and from my experience I am fully persuaded, that, lime or calcareous manure is the best for wheat. I am about trying the efficacy of clover and buckwheat, ploughed down, as a manure. I intend sowing wheat in the clover, and rye in the buckwheat field.

To furnish putrescent, or animal manures for all our worn-out fields would require immense labor and expense. If lime will answer the same purpose—and I believe it will—(a) we should not much longer complain of poor land; for, in this country, we have an abundance of the best lime-stone and timber—and now, all that is wanting is knowledge and industry in the preparation and application of it to our lands; in both of these particulars, we must admit we are sadly deficient. We have but two alternatives, either to improve our lands, or to sell and go westward, where Providence has furnished a richer soil.

Suppose, for a moment, my whole farm to be as rich and as well cultivated as that one acre, (and I might have had it so if I had began to improve when I first purchased,) what would be the profit of it yearly? If on that one acre I make a profit of only $30, (and I am satisfied I will make more when the second crop is taken) my whole 225 acres would then yield me a profit of $6750, a sum greater than I can sell the farm for, and more than I have ever made on it since I owned it.

But suppose a clover crop to be twice as valuable as any other, I would still have $3375. I will now deduct one-half of that amount for pasture land and failure of crops, &c., and I would still have a profit of $1687. I will now suppose that $687 will be required to defray the expenses of the farm, I would still have a yearly profit of $1000.

I will now give you a short account of my profit and loss for a few years.

Not being able to work myself, and having no force of my own, I am necessarily compelled to have my work done by hired hands. After I became unable to labor myself, I found that my hired hands were sinking money for me. I then resolved to keep a strict account of all my farming operations. At the end of the first year, I found, on balancing the account, that I was $163 in debt. I examined the account, and endeavored to ascertain, if possible, where the fault lay. I satisfied myself sufficiently to make a second trial; accordingly, I dismissed my manager and some of the hands, and employed a more faithful and industrious manager, determined, if possible, to profit by past experience. At the end of the next year, when my books were compared, I found I had made a profit of $93, a sum not half sufficient to pay the interest of the money I had laid out. A third trial is now going on, with the same manager, but more immediately under my own supervision, aided by all the knowledge I have been able to acquire from agricultural papers and other sources. I cannot yet make a fair estimate of the profits, but from present appearances, I think I shall realize near $500. Is it not astonishing to see the number of persons who subsist by farming entirely, still continue the old land-killing system, when such profitable results are to be expected from an improved mode of tillage?

Farming is both a pleasant and profitable employment, if properly carried on. The experience of thousands have taught us this, and any thing I could say, would not make it more clear.

I have been asked by some, "what use have we for Rail Roads? our population can consume all the surplus which we now have." I answer, if we had Rail Roads, the amount would be increased to a vast extent; our interests would become more united, and the danger of a disunion proportionably lessened.

A few words more to my brethren of the plough in East Tennessee. From the great irregularity of our surface, we have a great diversity of soils and climate, requiring the greatest agricultural skill, to ensure its full developements. Clover and lime, judiciously used, as a manure, will produce beneficial results, far beyond the expectation of those who have never tried them. Arouse then, brethren, to the improvement of your lands, and be assured, you will reap a reward, amply sufficient to compensate you for your labor.

WM. PEEPLES.

(a) We would caution friend Peeples against an exclusive reliance on lime for manure, valuable as it unquesionably is. Nothing can justify the neglect of animal and vegetable manures, without the application of which, the permanent fertility of land cannot be obtained—but when united with the use of lime, the effect will no doubt equal his expectations: but in both cases it must not be forgotten, that to ensure profitable results judicious tillage is indispensable.—EDITOR.

A man who finds not satisfaction in himself, seeks for it in vain elsewhere.

Agriculture.—The ancient Romans, previous to their degeneracy through foreign conquests, were an agricultural people. The land was divided into minute portions, and necessity compelled its cultivation. Few farmers visited the city, except on market days, which were every ninth, when they disposed of their produce, and examined the laws posted on the capitol and in the market place a certain number of days before their adoption by the people. Subjoined are some of the maxims most common among this class of the Roman people, and which afford a pretty good test of their agricultural character:

1. He is a thriftless farmer who buys any thing which his farm can produce.

2. He is no husbandman who does any work in the day time, that can be done in the night except in stormy weather.

3. He is worse who does on work days, what he may do on holydays; and

4. He is worst of all who in a clear sky works within doors, rather than in the field.

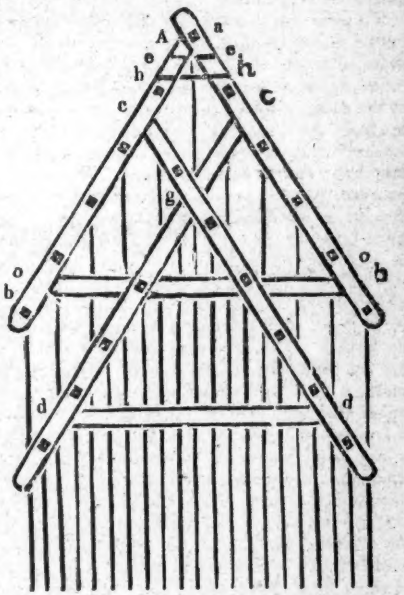
From the New England Farmer.

MR. ABBOT'S HARROW.

The drawing and description of the newly invented harrow, which we have published this day, will, we believe, be found an acquisition to the agriculturist. We have carefully perused the descriptions and drawings of English implements of the sort, as well as compared Mr. Abbot's with those now in use in American husbandry; and so far as we are able to judge, Mr. Abbot's is decidedly superior to any of them; its cheapness and the simplicity of its construction are not among the least of its merits; it is so broad, and as it were fortified by the position of its timbers, that it cannot fail to be very strong and durable. It will be observed that the teeth are so placed that not any two of them move in one tract, and that the tracts are at equal distances from each other, which are desirable things in the construction of harrows. Sir John Sinclair says, that "teeth of harrows should either be round, or perhaps with a sharp edge, bent forward, like so many coulters, as they make themselves cleaner than when they are square, or of any other shape, and work easier after the horses." We should believe, however, if the teeth were square, and set diagonally, so that one corner of each might go forward in the line of motion, that the harrow would be as easily drawn, and perform as good work, in ordinary cases, as in any shape which could be given them. If the ground be rough, the teeth of the harrow should be set standing a little backwards, so that they may not be so liable to catch or hang by roots, stones, &c. But when the ground is smooth, the teeth should slant a little forwards. The best way to fasten harrow teeth, according to Dr. Deane, is with shoulders under the harrow, and nuts screwed on above.—A friend, however, has suggested that a better and cheaper way is to place strong slips of timber over the beams of the harrow, so as to press on the heads of the teeth and confine those slips in that position by spikes, or iron pins, with screws.

Greenland, N. H., March 12, 1824.

Sir: It has not been in my power to send you the following plan and description of my Harrow before the present time.



This Harrow combines the following good properties: It is *strong*. It is less liable to be choked with sods or stones, than any other harrow, which cuts the ground as finely, and is in use in this country, or is described in any Agricultural books, which have come to my knowledge. It is easily cleared, when choked. It is so well balanced, that it needs no additional weight to keep any part of it to the work; and it cuts all the ground over which it passes, at equal distances. It cuts deeper into the ground than harrows, whose teeth are placed nearer each other. It is an improvement on one which I invented in 1818; and has been used by me, and many other persons in this and several other towns, since the spring of 1820. As its excellence arises from form, it is important, that this should be carefully preserved. Some persons have adopted a mutilated form of it; and by shortening the inner beams, and inserting more teeth in the outer ones, have destroyed the proper balance of their harrows; and rendered them

much more liable to be choked, than those are, which are made agreeably to the plan.

Joists 3½ inches square, or 3½ by 4 of oak, or 4 inches square of elm, will be sufficiently large for the beams of a common field harrow, to be drawn by two horses. A harrow made on this plan, having its teeth sufficiently near, and having suitable handles, answers an excellent purpose for harrowing between the rows of corn, potatoes, and other vegetables.

To form this harrow, let the outer beams be butted together at *A*, so as to form with each other an angle of an equilateral triangle; or, in other words, so that the teeth at *b* and *b* may be at the same distance from each other, that they are from the tooth at *a*. The distances between the teeth in the several beams must be equal; but may be greater or less at pleasure. The distance between the teeth in a field harrow may be a foot. But six or seven inches is sufficient for the distance between the teeth in a harrow designed to be used between the rows of corn and other vegetables. The spaces between the traces, cut in the ground by the teeth, will be only one quarter as great, as the distance between the teeth in the beams. The hindmost teeth in the harrow, that are used between the rows of corn should be made so as to be fastened by a screw and nut at top, so that they may be taken out, if necessary, to accommodate the harrow to narrower spaces in the latter stages of cultivation. The inner beams should each be parallel to one of the outer ones, and tenoned into the other at *c*, so, that the line, in which the teeth are inserted into them, may intersect the line of the teeth in the outer beams exactly in the midst, between the 2d and 3d teeth from the foremost one. Let the inner beams be halved together at *g*, where they intersect each other. From the point *c*, where the line, in which the teeth are inserted in the inner beams, intersects the line of the teeth in the outer ones, set off on one of the inner beams, at the distance of the teeth in the outer beams, as many places for teeth, as there are teeth in either of the outer ones; and on the other one mark the same spaces; but do not insert teeth in the two forward places. Let a bar *o o*, of suitable width and an inch or more in thickness, be passed through all the beams immediately before the hindmost teeth in the outer beams, and behind the third place of the teeth in the inner beams. If it be of suitable width and properly inserted, it will not interfere with the places designed for the teeth. Let a similar bar be passed through the inner beams, between the two hindmost teeth, at *d d*. Fasten the two outer beams, where they are butted together by a trennel at *e*, and at a little distance behind the trennel insert an iron bolt at *h* to receive the hook of the chain, by which the harrow is to be drawn. Let the tenons and the bars be suitably pinned; and let the teeth be inserted in the places designed for them. For scarrifying ground not ploughed, teeth made flat and sharp like the coulter of a plough, and inserted so that their sharp edge may be drawn directly forwards, are better than the square teeth, which are commonly used.—It must be obvious to every one, who considers the principles on which this harrow is constructed, that it may be made larger or smaller, and with a greater or less number of teeth, according as the object for which it is designed, may require.

Your obedient servant,

EPHRAIM ABBOT.

☞The stock of the Corn Harrow, may be made either in the form of Abbot's harrow, above described, but of a length, width, and size of timber proportioned to the nature of the soil, strength of team, and width of rows between which it is to run, with handles, like those of a plough, for guiding it, with smaller teeth, or it may be made, by three pieces of timber morticed into each other, so as to form a triangle, with handles as above, the teeth straight and sharp pointed at the lower end, and formed of somewhat smaller iron than those of the large harrow, but strong enough not to bend in working it.—The stock of the Cultivator may be made in a similar manner, with a piece of timber inserted in the centre of the hinder part, and passing between the two side pieces, where the three are to be fastened together by a bolt or band, or both, and a tongue clevice may be attached, to which the single-tree may be fastened. The teeth, or hoes of the Cultivator are of different forms, suited to the land—those in form of a bull-tongue, or narrow shovel plough, not more than four or five inches wide, and seven or eight long, below the stock, answer well; each tooth or hoe is fastened into the stock by means of a strong square neck at the upper end, inserted through the wood, and a screw and tap on the upper side of it. Care should be taken in making both the Corn-harrow and the Cultivator, so to place the teeth, as that each shall cut a different furrow, and that the furrows be equi-distant from each other, and near enough to each other to break the land well, and to destroy the grass and weeds.—Ed. Tenn. Farmer.

From the Register.

TO CURE THE BIG HEAD IN HORSES.

Take one quart of hog's lard, one quart of tar, and one pound of sulphur or brimstone; put all together in a pot over a slow fire, and boil it till the brimstone disappears; then make a mop on a strong stick, and rub the horse's head from the eyes to the nostrils once a day, until the mixture is all gone, and it will make a cure. I have tried one horse and did cure him sound and well. If you think the receipt worthy your attention, you can put it in your Register, with my name.

RICHARD B. HARRISON.

Dallas co., Ala, April 19, 1836.

From the Farmers' Register.

Anticipated Change in the Agriculture of the United States.—Silk, and Beet Sugar.

Some considerable time has now passed since we yielded, slowly and with difficulty, to the belief, that the introduction of silk culture in this country would be extended widely and profitably: and since adopting that opinion, we have made continually repeated efforts to impress on the people of Virginia, and the other southern states, the superiority of their facilities—in better climate, cheaper land, and surplus and now expensive hands—for carrying on this new business, over those of our northern countrymen, who have already proved the advantages to be derived, and are investing large capitals in numerous adventures for this object. In New England, where most of these efforts are making, there is no superfluity of labor. Fortunately, every poor female, and all persons infirm from either tender or advanced age, may be, and annually are, employed profitably, according to their measure of bodily power. Yet still it is considered profitable to *divert* much of this labor to the silk business: and that too, in a climate so rigorous that artificial heat must be used frequently in rearing the worms, and the best kinds of mulberries are often greatly injured, if not killed to the ground, by such severe winters as the last. In Virginia, there is no difficulty as to climate—thousands of now unemployed and expensive hands might be given to the work—and lands, now unprofitable or neglected, and at very low prices, would serve as well for planting, as those selling ten or twenty times as high in New England. Putting all views of greater pecuniary profits aside, if the silk culture could be established in Virginia, without any absolute loss to the undertakers, a great moral and political benefit would be gained, in giving the bread of independence, and of honest labor, to thousands of destitute females, who have now no resource but to live on the charity of others, or to starve on their own ill-paid labor of the needle.

Another new kind of industry now seems likely to be introduced, and established with profit—and which, in a different manner, offers great benefit to the agriculture of a large portion of the United States. This is the making of sugar from beets. We readily confess, that until very recently, we considered this scheme worthless, and absurd in every country that could freely import sugar produced from the cane—and that this species of industry, which could not be established by the iron despotism of Napoleon, and the protection afforded by his "continental system," could not exist in times of peace and of comparatively free trade. But we have been forced to yield the opinion to such facts as are presented in the letter of Professor Cooper, and other pieces in this No. which are but specimens of many that have recently appeared. If, as seems to be undeniable, beet sugar can be made cheaper than that of the cane can be bought, there is an end of all question and doubt as to profit. There is also an agricultural benefit to be expected from the new culture of beets, for sugar, that is very important, and that is an addition to all the pecuniary profit expected from the sale of sugar, and the profits of live stock fed on the pulp left after the saccharine matter has been expressed. This is the introduction in our farming of what is so greatly needed, an increased extent of culture of roots, or green and meliorating crops, to take the place of our too extensive grain culture. The culture of beets for sugar, and the use of the pulp as food for cattle, must necessarily make the rotation of crops more mild, and add greatly to the improvement of the soil—and by this means, would ultimately add very far more to the fertility and wealth of a country, than as much grain culture, even though the pecuniary profits to the farmer, at first, might be no more. The same important consideration applies also, though in a different manner, to silk culture. Thus it may well happen, that the introduction of these two new kinds of culture, even though not attended with great pecuniary profits, (or not much greater,) at first, would be productive ultimately of far greater to each individual farmer, as well as of greater moral and political benefits to the nation.

This important consideration of the advantage of beet culture to a rotation of crops, is properly appreciated in France. The latest French article on the subject that we have seen is from the pen of Mr. Soulange Bodin, and appeared in the *Annales de l'Agriculture Francaise* for April, 1836. We offer a translation of a passage on this head.

"The Viscount Morel de Vinde, in these Memoirs, has then presented the sugar beet as being the best, or rather the *only kind* of tilled plants which, in the fourshift rotation can usefully be substituted for the year of naked fallow [to prepare for wheat;] and he thus *considers as connected the universal perfection of our agriculture, with the manufacture itself of sugar from beets:* a manufacture which, by its indefinite extension and demand continually renewed, ought to give greater encouragement to the culture of this plant, which is susceptible of having, from this moment, a general use, and a certain sale. Indeed, he says, the (making perfect the) four-shift rotation, consists in finding a plant that is not exhausting to the soil—of which the tillage is confined to one year, and serves well to cleanse and to pulverize the soil—and of which the products, not yielding a kind of food for men before indigenous, or belonging to the country, shall however be in general use, and command a certain and ready sale. The beet, applied to the making of sugar, fulfils perfectly the conditions of this problem." * * *

"It may also be observed, that the plant which by the production of this sugar, renders possible the universal improvement of agriculture, furnishes besides, by its remains, (as food) the best of all manures from cattle. This plant fulfils so completely all the conditions required from tillage crops, that it *would be necessary to substitute it for the naked fallows, even though it should not yield otherwise (and at first) such rich or important products.*"

In a report of the Council of Agriculture, Manufactures and commerce, which was also published in the *Annales*, it is stated by the Minister of Commerce (presiding at the meeting) that the manufactories of France in 1835, yielded 25 millions of kilogrammes of beet sugar, of the value of 35 francs the quintal, which is equal to one-third of the annual consumption of the kingdom; that 50,000 hectares of land were then subjected to the culture of the plant; and that in those parts of France where the culture was established on a large scale, the value of the lands had been increased, and in many cases even had been doubled.

According to the present impertect lights on this subject, we fear that the beet culture will not suit a region so warm in Eastern Virginia. But its introduction will be a benefit sufficiently important, even if confined to the regions lying more north and west. It is probable that the fanaticism of the "abolitionists" may be mingled with the motives to spread this culture in the north—and that one of the results may be an effort to lessen the consumption of sugar from the cane, as being a product of slave-labor. Be it so. This fanaticism cannot exert any part of its tremendous force more harmlessly to the south, or more beneficially to the north, than in promoting the extension of this new culture.

Beet Sugar.—The prospect which now exists of the introduction of the manufacture of Beet Sugar into this country renders all authentic statements respecting its present condition in France, particularly interesting. Some valuable facts on this subject have been recently elicited by a discussion between the boards of trade, commerce and agriculture, in that country, on the project of imposing a duty on the domestic article, which it is said enjoys in comparison with the imported an unfair advantage. It should be reollected that all the sugar imported into France comes from her own Islands, Martinique and Guadaloupe. In entering a French port,the colonial sugar pays a duty of 4½ cents per pound. The price of colonial sugar of quality called *good fourth* in the Paris market is about 12 cents. The domestic brown sugar it is said can be produced at 8 cents per pound, including all expenses, and that by the improvements making in the process, the cost will probably be reduced to 6. How the quality of this compares with that of the article first named is not stated; but it is said that the effect of this domestic competition has been to check the increase of impertation, and threatens to diminish it. 1831 the consumption of W. I. sugar in France amounted to 67,542,000 kilogs; in 1834 to 66,058,000, but it is calculated that in consequence of the increasing demand and reduced price of the article, the whole consumption of the country cannot be less than 100,000,000. Other accounts go to show that the producton of beet sugar for 1835 was not far short of 30 millions, and that in 1836 it may probably rise to 40. The killogram is about 2 lbs. avoir. It is evident that the duty of 4½ cts. per lb. on colonial sugar operates as a bounty on the domestic article to the same extent. The proposition made by the Chamber of Commerce was to reduce this duty to ¾ cts. and to impose an excise of ½ cent on the beet sugar; this was opposed by the board representing the agricultural interest, on the ground that the culture was yet comparatively in its infancy, that the best and most economic processes had not yet been generally adopted, and that to withdraw their protection at this period would cause much distress and endanger the success of the whole enterprise. They therefore urge that no measures be adopted to alter the existing system for three years.

In a Memorial to the French Chambers remonstrating against the project of the law to tax the Beet Sugar, by Crespel—Delisse, the most extensive manufacturer of Beet Sugar in France, among the interesting evidences of the extent to which indigenous Sugar is produced, we find it stated, "that in our departments, nearly all our villages are now known by the number of Sugar Manufactories which they contain, where heretofore they were designated by the number of churches."—*Newburyport Herald.*

Bene Plant.—A few leaves of the plant, when green, plunged a few times in a tumbler of water, makes it like a thin jelly, without taste or color, which children, afflicted with the summer complaint, will drink freely: it is said to be the best remedy ever discovered.—*Philad. Courier.*

The Weevil.—Salt is said to be a complete preventitive against the destruction of wheat by the weevil. Mix a pint of salt with a barrel of wheat, or put the grain in old salt barrels, and the weevil will not attack it. In stacking wheat, four or five quarts of salt to every hundred sheaves, sprinkled among them, will entirely secure them from the depredations of this insect, and render the straw more valuable as food for cattle.—*Hor. Register.*

From the Yankee Farmer.

HAY MAKING.

It is evident, that by the old practice of spreading hay from the swath, and suffering it to remain thinly spread and exposed to a burning sun, the first and second day after being mown, a large portion of its nutratious properties is lost. It is gratifying to learn that many good farmers are discontinuing that practice, especially in respect to clover hay. Clover should not lay long in the swath, but should be cured in the cocks chiefly by the sweating process. After the clover has been in cocks long enough to sweat, as it is called, the cocks should be opened, but not spread thinly, two or three hours in the day, according to the weather, and then if not sufficiently cured, immediately cocked up again to be opened the next good hay-day. If properly managed, little injury will seldom be done by rainy weather. A farmer states in the New England Farmer that he put the grass, perfectly green, into cocks of about 200 pounds, and after ten days of rainy weather, he "found it to be in a perfectly sound condition, except so far as the rain had penetrated," but that he "saved it entirely well." Cured in cocks, the leaves, blossoms and stems dry alike. The moisture is continually evaporating even in cloudy or moist weather. After a partial fermentation has taken place, the evaporation is very rapid upon the opening of the cocks. A somewhat similar mode of curing the other kinds of grasses, it is believed, will be found beneficial. Let farmers try it. The green appearance of the cured hay and its fragrance, and the preference the cattle will give it to that which is made in a hot sun, by drying until it has lost its fragrance and crumbled, will afford them ample evidence. The hay when put up into the mow ought to have a certain degree of moisture. As a remedy against fermentation or deterioration, it is always judicious to apply salt, about a peck to a ton. No one doubts the benefit of salt so applied to the cattle, and it saves the inconvenience of giving them salt in the winter time. But by the application of salt, farmers would gain not only by the increased value, but the increased weight of the hay. Indeed I learn that certain persons, who intend their hay for exportation, put their hay into the barn in quite a green state, and, with a view to large profits, prevent the fermentation by a large quantity of salt.

Judge Buel of Albany is probably the best farmer in the United States. He unites science with practice. He employs, I am informed, not less than a dozen laborers on about 70 acres, and realizes a net income from his small farm (a sandy soil, and sterile when he commenced its cultivation,) of about 1500 dollars per annum. His opinions upon agricultural subjects are always entitled to the highest consideration, and he communicates the same in a plain, simple style, well calculated to convince farmers. Chiefly by the force of his arguments and the weight of his opinions, the farmers in a large portion of New York, have discontinued the unwise and injudicious practice of topping corn. Upon the subject of haymaking, he concurs in the preceding remarks.

For the reasons suggested, and others which will readily occur, it is very evident, that it is a bad practice to let the mown grass, in its greenest state, even that which is cut late in the afternoon, remain in the swath. All mown grasses should be in a cock during the night. In such case the action of atmospheric air, or the dews, or rains, which unexpectedly may fall, will injure only the exterior of the cocks. The sweating or fermenting process will commence, and instead of laying in the swath till late in the morning for the dews, or other moisture to evaporate, the hay is curing in the cocks, and in a proper condition for opening, for rapid evaporation, when a warm sun approaches the meridian.

W. CLAGGETT.

Portsmouth, July 25, 1835.

New Plough.—We have received notice, says the Cultivator, of a material improvement in the plough, made by Thomas Midford of Hyde-Park. The advantages of this improvement, over the common plough, are represented by our correspondent, to consist,—1. In requiring but half the power of a common plough to propel it. 2. The facility with which it may be regulated, as to breadth and depth of furrow-slice. 3. In requiring no one to hold or guide it, except to enter it at the ends of the furrow, which may be done by the team-boy. And 4. In performing the work better than any

ploughman can do it with the common plough. Such are the advantages as represented to us. If it possesses half of them Mr. Midford has effected an important improvement.

From the New York Farmer.

SILK.

Mr. Samuel Whitmarsh, of Northampton, who went out the last autumn with a view to inspect the Silk Manufactories of France and Italy, and to obtain what information he could respecting the raising and management of the worms, and the preparation of the raw material, has just returned, after an entirely successful tour.

He says decidedly that every thing which he has seen and learnt, favors the cultivation of silk in this country; that it may ultimately become one of the most important interests of the country; and will satisfy all reasonable expectations.—As it respects climate and labor, two points in regard to which there has been much scepticism, we have a decided advantage.

As it respects labor, though wages and living are extremely low abroad, and the peasantry engaged in the raising of silk live in the most frugal and meanest manner, yet so much more is accomplished by a laborer among us than among them, that the difference in the expense finds more than an equivalent in the superior amount performed. Every thing done abroad in this way is done in the most awkward and slovenly manner; the silk throughout Europe, is cultivated in a small way, in cottages, by humble means; and instances are not unfrequent, in which the peasantry travel five and six miles daily to obtain a supply of leaves for their worms.

The silk raised on the continent, is of a far inferior quality to that raised in this country; eight pounds of cocoons in this country, yielding a pound of silk, whereas in Europe, twelve pounds are required.—This, he thinks, is to be attributed to our climate; the colder the climate, as long as feed can be found for the worms, or to speak in more classic terms, for the operatives, the better the silk. The American silk, therefore, is of a superior quality to the European or the Chinese.

Mr. Whitmarsh has brought with him several kinds of mulberry, to which he designs to give a fair trial. The white mulberry is not used, excepting as furnishing stocks for grafting. The mulberry which he thinks is to be preferred to all others, is one known as Muries de Chine, or Chinese Mulberry; but not the Morus Multicaulis. This plant has not yet been introduced into France or England, but has been long enough in Italy to test its remarkable value. Its foliage, though not so large as that of the Morus Multicaulis, is yet much thicker and heavier; and it is comparatively proof against the coldest climate.

Save your Soap Suds.—It is not perhaps generally known that soap suds form one of the most valuable applications to a great number of vegetables, and that by allowing them to be thrown away, a serious loss to the garden and fruit orchard is sustained. Applied to melons, squashes and cucumbers, it matirially aids their growth, besides having a good effect in helping to banish the multitude of worms, bugs and flies that harbor near them and feed upon them. It is one of the best remedies for plants attacked by the plant louse, and would annually save large numbers of turnips, cabbages, &c. from falling a prey to this minute but formidable insect, were it sprinkled over them instead of being thrown away.—Where these creatures have seized upon the extremities of young grafts, soap suds thrown upon them with a syringe will soon expel them without injury to the tree. If you have no other use for your suds, heat it, and uncapping some of the ant hills that disfigure most farms, pour it upon them; experience will show that these insects are not fond of soap.

Genesee Farmer.

On the use of Lime for Preserving Health.

Lime is an antidote to contagion, a preservative against infection, and as a means of purifying sinks, vaults, &c. is one of the most useful of substances. By making proper applications of this cheap, but powerful agent, together with a due attention to cleanliness and ventilation, the air in jails, hospitals, ships, &c. may be rendered comparatively sweet and salubrious. A quantity of lime while hot and quick scattered every day or two, into the vaults of back houses and other repositories of offensive matter is indispensable as well to health as to cleanliness.

From the Ohio Farmer.

RAISING CHICKENS.

The subject upon which I am about to write, may excite a smile upon the faces of some, but if I succeed even in rendering a small service to any, the object will be accomplished. He thinks he may throw out a few hints that may be useful in increasing the number and quality of an animal that is so universally made to conduce to the luxury of the table, and the proper sustenance of the human system.

In the first place, then, I would advise those interested to procure for themselves a good breed of fowls. The pair I sent you last fall, I consider nearer to perfection, in all respects, than those of any other breed. I call them the ostrich breed, from their strong resemblance, when about half grown, to that famous bird. They are large—their habits are very domestic—they lay well—set well—hatch well—and nurse well—and their flesh is very delicious. Have a well sheltered place for them to roost in, with a sufficient number of places for them to lay their eggs. Let your box be about a foot wide, and about fifteen inches high—with partitions about ten inches apart. The box to be enclosed on every side, with the exception of about six inches of the front, and at the upper part—place the box enough against the wall to prevent the depredations of children, &c. The hen is fond of a small aperture to creep into for the purpose of laying. At the proper setting season remove your eggs carefully every night into a safe place to prevent their freezing or getting much chilled, which will prevent their hatching. No "nest egg" is necessary upon this plan. The nest egg, in my opinion, seldom produces a chicken early in the spring, because of its generally having been chilled.

While the laying business is very brisk, prepare as many setting boxes as you may think fit. Let them be about eighteen inches square, enclosed on every side, with a loose cover for the top, not so tight as to shut out the air; put hay or straw enough in to form a nest, in which you may place about thirteen eggs—put the hen in the box and lay on the cover, with a weight sufficient to prevent her from knocking it off. You may confine her without any injury, for three or four days, at the expiration of which time you may take off the cover, and leave her until she hatches—which, almost every body knows, will be in exactly twenty-one days from the commencement. The advantages of the large box are these: It gives room to move round without breaking the eggs, and the little ones a chance of coming out without the danger of their running away. When hens set on the ground or in unprotected places, they are subject to be interrupted by animals, and when two or three chicks are strong enough to run they leave the nest, and the mother, following them, leaves the half-hatched to perish. This is a great loss of time, eggs, and chickens.

As the warm season advances, always endeavor to set three hens exactly at the same time—they will consequently hatch at the same time, and you can then divide the chickens of the three between two, and they can generally take care of more than they can well hatch, if properly managed.

Make as many moveable coops as you think necessary, with a shed roof and slats in front, which place in some safe place from hogs, in the sun—the sun is very invigorating to young chickens. The hen and chickens should be fed with corn meal, wet with water and milk, three times a day, and watered at least once. The hen should be kept confined in this way at least for a week, to prevent her from leading them into the wet grass in the morning, which is very prejudicial to their well being. At the expiration of that time, if the weather is good, you may place a block under one corner of the coop and let them out; at night they will return and take possession again, when you should take away the block, and keep them in again until the dew is off the grass. If the weather is unpleasant keep them in all day.

When the chickens acquire more size and strength they should be fed in what is called a "chicken feeder," which is a covered enclosure six or eight feet square, with slats just close enough together to admit the chickens, and exclude the older fowls.

Each of my hens last year raised to perfection, on an average, at least twenty chickens. They each raised two broods, and several hatched three times.

When the chickens are taken from one hen and given to another, the one from which they are taken should be confined for about a week and then set at liberty, when she will soon commence producing another family.

Improvement in Candles.—I steep the common wick in lime water, in which I have dissolved a considerable quantity of common nitre or salt petre. By this means I secure a purer flame and a superior light; a more perfect combustion is insured; snuffing is rendered nearly as superfluous as in wax candles, and the candles thus treated do not "*run*." The wicks must be thoroughly dry before the tallow is put to them.

N. E. Farmer.

Southern Wealth.—The Vicksburg Advertiser estimates the present Cotton crop of the State of Mississippi at 100 millions of pounds, or from 15 to 18 millions of dollars.

From the Farmer and Gardener.

A PREVENTIVE OF THE WHEAT FLY.

The following communication we copy from the Baltimore *American*, and commend it to our readers as being worthy of their attention. We published under our head of "Work for September," in our 18th number last year, the same recipe, with the exception that we recommended the seed to be passed through strong ley, or lime water, instead of pickle.

From the American.

MESSRS. EDITORS—Some time since in a communication published in the Baltimore papers, I stated my views on the destructon of wheat by the Hessian fly, and offered a remedy against its ravages. As this season will be remarkable for the devastation committed by this insect, and as the time is approaching for seeding for the next crop, I request a small space in your columns to bring before our farmers again the remedy then proposed, fully believing that if followed much good will result from it.

On observation it has been found that the insect producing the fly progresses with the growth of the wheat; and if the wheat is early sown, and the season is favorable to a luxuriant vegetation, the fly will be very perceptible in the autumn.—The progress of the insect, as is observed in a former communication, is from the seed upwards, and as many as six or ten have been observable on one stem between the root and surface of the earth. The question then arises, how is this insect generated, and what means should be used to destroy it? It is either generated in the grain of wheat similar to the bug which infests the pea, or the *insect when in its winged state deposits* an egg on the surface of the grain when in the ear and *thus when the wheat is sown and begins to vegetate* the egg vivifies *and the destructive worm is formed.*

For the following reasons I am strongly inclined to the latter opinion. It is known that this insect releases itself by bursting the blade that covers it, when the head is forming, and assumes *its winged state*, and there is to my mind no doubt that this *fly deposits its egg on the wheat* when filling and coming to perfection. If I had any doubts on this subject they would be removed by the fact that with the aid of a microscope the egg is discernible in the form of a glutinous matter. If this opinion be correct, the remedy is simple, and worthy at least of a fair trial. Providence inflicts no evil upon mankind without also providing some remedy, and unless this is intended as a special curse upon the husbandman there is and must be a remedy which he must find out by actual experiment.

In the course of twenty years experience in this matter, I have known but one experiment made to destroy this fly, and that proved successful. An intelligent farmer in Loudoun county, Va. having understood that some of his neighbors with the aid of a microscope, had discovered a glutinous matter on the surface of the wheat which they believed to be the egg of the fly, determined to try an experiment for its destruction and succeeded in that crop; but unfortunately it was not followed up, and whether it will be an effectual remedy in all seasons, remains yet to be tested. The plan which he followed, and which it is the object of this communication to recommend to the notice of the farmers, is simply to pass the seed wheat through a strong brine or pickle, washing it well, and then rolling it in slackened lime, (similar to rolling it in Plaster of Paris) not preparing at one time more than a day's sowing. Washing the wheat in brine, and rolling it in the lime are done primarily for the purpose of destroying the egg, but it answers another good purpose, that of preventing the growth of smut. The lime will also be found to act as a powerful stimulant to the growth of the wheat, and superior to that of plaster.

This remedy being so simple, and as I firmly believe so efficacious, I hope there will be many farmers disposed to make trial of it, and thereby fully test its correctness. If I should be instrumental in arresting the progress of this direful enemy of the farmer, I shall be amply compensated in the recollection that I have discharged my duty to the community.

An Agriculturist of Maryland.

"*Lime.*—By the fermentation it induces, the earth is opened and divided; and by its absorbent and alkaline qualities, it unites the oily watery parts of the soil. It seems also to possess the property of collecting the acid of the air, and of forming with it a combination of great use in vegetation. Thus robbing the soil of its oily particles, it will in time render it barren, unless supported by manures of an oily nature. Its great use upon a sandy soil is, by mechanically binding the loose particles, and thereby preventing the liquid parts of the manure from escaping out of the reach of the radical fibres of the plants. Upon clay the effect is different: for by means of the gentle fermentation it induces, the unsubdued soil is opened and divided; the manures laid on regularly, so as to come in contact with every part of it, and the fibres of the plants have full liberty to spread themselves. Although we cannot describe all the soils that lime operates beneficially upon, we can specify some upon which it does operate well. 1. Upon all soils, being drained, which contains an abundance of ligneous or woody matter, as reclaimed swamps, and upon those containing insoluble vegetable matter, i. e. matters which will not dissolve in water, by reason of their chemical combination, quick lime

will be beneficial by rendering the inert matter soluble, and fitting it to become the food of plants. 2. Upon all soils deficient in calcareous, or carbonate of lime, be they even stiff clays or porous sands, mild lime, or lime that has become saturated with carbonic acid, is unquestionably beneficial. It corrects the mechanical defects of clays and sands—renders manures more beneficial, and the drafts less prejudicial. Quick lime soon becomes mild lime after it is commingled with the soil. As a general rule, carbonate of lime is beneficial upon all soils belonging to the primitive formation, and to transition formations that are deficient in this earth. In the use of this mineral, we see the importance of knowing the constituents of soils?"—*M. Purvis.*

From the Farmers' Register.

FACTS AND ESTIMATES RESPECTING BEET SUGAR.

To the editor of the Farmers' Register.

Columbia, S. C., July 1 1836.

In the February No. 1836, of the *Journal des Connaissances Usuelles*, for which I subscribe with much satisfaction, I find an analysis of a treatise on Beet Sugar, by M. Mathieu Dombasel, 1836, *chez Huzard a Paris*, 1836, *priz* 11-2 *franc*, 2nd edition.

The facts, in brief, are these:

1000 kiliogrammes of beet root, will yield, to a careful manufacturer, six per cent of good merchantable brown sugar, or sixty kiliogrammes: which can be refined into excellent loaf sugar by the usual process.

1000 kiliogrammes of beets can be purchased by the manufacturer for 16 francs.

By careful and accurate analysis, 10 per cent of such sugar can be extracted from beets: but 6 per cent is the usual quantity, and improvements are contemplated that may produce 8 per cent.

The expense of manufacturing 1000 kiliogrammes of sugar from beet root, is calculated at 12 francs.

The residue is worth 3 or 4 francs as food for cattle.

Put this into English.

A kiliogramme is 2 1-5 lbs. averdupois: 1000 kiliogrammes will amount to 2200 lbs.: and 60 kiliogrammes to 132 lbs. averdupois.

A franc, in merchants' accounts, here in America, is culculated at 20 cents, though hardly worth 19.

A sous is the 20th part of a franc, or one cent; or one half penny English. The cost of beet root and of manipulation for 132 lbs. of brown sugar, will be 28 francs: from which, deduct 3 for the residue, and there will remain 25 francs, or 500 cents, the price at which 132 lbs. of sugar can be manufactured, not quite 4 cents per lb.

The French reviewer of the book, calculates the expense at 5 sous per lb. French, which, is either 7561 grains English to the lb., or 7717 grains, for both these numbers are found on good authority. The latter I take from Kelly's Cambist. The English lb. averdupois is 7000 grains; hence, there is but little variance between my calculation and that of the French author.

I confess I was astounded at these facts. Sugar from beets at 5 cents per 112lbs. when cane sugar is nearly three times the price to the consumer in this country.

As to the value of the beets. I think we could afford them as cheap here. I am sure they could be raised for less in the confines of New York and Pennsylvania, where they grow with very great luxuriance.

I lived some years a mile and a half from Altringham in Cheshire, (England.) At Altringham, (a sand hill,) they grew carrots thus. They manured at the rate of 10 lbs. sterling per acre, every 3 or 4 years, purchasing horse manure at 4s. 6d. per three horse load at Manchester. They haul the dung ten miles. They plough with 4 horses as deep as possible. They sow their carrot seed by rubbing together one-third carrot seed, and two-thirds sand, broadcast. They hoe with a ten-inch hoe, leaving the roots about a foot apart.—They get from 12 to 16 tons per acre. Arthur Young somewhere talks of 19 tons of carrots per acre. I used to buy them laid down at my door at 4s. 2d. per 250 lbs. weight, not washed. I fed my horses chiefly with carrots when they were in season.

Pray think a little on these facts. Has not every farmer, on rich, light land, a sugar plantation at his door?

THOMAS COOPER, M. D.

From the Farmers' Register.

FERTILIZING EFFECTS OF CLOVER.

In 1835, S. M., in the county of Campbell, made 14 2-5 barrels (72 bushels) of corn to the acre on land, a hill side, which had been improved only by clover and plaster.

The seed was sown in 1832, and the clover, without being mowed or grazed, was permitted to rot on the ground three years. The owner thinks the product would have been larger if the corn had been planted closer, and that the crop would not have *exceeded* five barrels, before the clover was sown.

M. D.

From the New England Farmer.

BEET ROOT SUGAR.

It is stated in papers in the northern parts of France that large orders have arrived from the United States for supplies of beet root sugar.

SILK FACTORY.—The Hartford Silk Factory flourishes. There are about 100 looms, 60 of which are occupied by pretty Yankee girls. The labor is light, the profits of the company great, and the fair hand maiden cheerful and contented. Success to the American silk manufactories.—[Conn. Aurora.]

CONSIDERATIONS FOR YOUNG MEN.

LETTER XXXII.

The creative goodness of God, and his preserving mercy, should have led you to devote yourself to his service; but we present another motive, which should move your heart, and induce you to submit to the claims of the gospel. It is the love of Him, who came to seek and to save you.

You form a link, in the vast chain of accountable beings, which stretches back to our original progenitors. This connection marks you as a sinner, and obliges you to feel all the miseries, and fear all the evils, which flow from transgression. They are evils, not only incident to the present life, but extending to the life which is to come. What a miserable assemblage of beings should we have been, had no adequate Mediator appeared for our relief! There could have been no hope of happiness, either here or hereafter. "But thanks be unto God for his unspeakable gift." Thanks to the almighty Saviour for his condescending love!

You have read the history of those sufferings, which met your Lord at the manger, and attended him to the cross. It would ill become me, by any attempt at description to detract from the touching narrative which inspiration has given. They who saw his agony, and heard his dying groans, have left a picture, which no coloring of mine could heighten. Remember that these sufferings were endured to take away sin, and to raise the soul to heaven. Remember, that, to accomplish our salvation, "He who thought it no robbery to be equal with God, humbled himself, and became obedient unto death, even the death of the cross." Without this sacrifice, I could never have offered, nor *you* received, forgiveness. Without the intervention of this compassionate Mediator, no avenue of escape would have opened on our despairing eyes. "He came to seek and to save that which was lost.." "He died, the Just for the unjust, that he might bring us to God." Let me, for a moment direct your view to Calvary. Survey that Sufferer, who is nailed to the bloody tree. As you gaze on the scene of agony, tell me, do not those death-groans speak to your heart? Do they not tell you of a doom to which you are disposed? Do they not speak of a love that bleeds and dies for your rescue. Does not the Sufferer say to you from the cross. Come hither, O sinner, and see in the wounds which I bear, what was due to thy transgressions; come and learn the height and depth of that compassion, to which thou art insensible, and the preciousness of that blood which thou tramplest under foot.

I shall leave you, my reader, to pursue this subject for yourself. With the Bible in your hand, go to some retired spot, and think of the dying love of Christ. Bring home the subject to your soul. You have an interest in it, and it has a claim upon you. It says, "To you, O men, I call, and my voice is to the sons of men." "Is it nothing to you, all ye that pass by? Behold, and see if there be any sorrow like unto my sorrow."

Avoid considering the sufferings and death of Christ, as a mere exhibition of sympathy and moral grandeur. Poets have so often touched this plaintive theme, and painters so frequently made it the medium of their fame, that you are in danger of viewing it apart from its personal bearing. A shade of sadness may pass over your mind, when you hear the sufferings of the cross rehearsed in pensive numbers, or when you see on the canvass the vivid touches of the Redeemer's agony: but the solemn feeling should ripen into reverence, and the sympathetic tear should be accompanied by the gush of penitence. It was your sins which assisted to erect the cross, and to nail upon it the mysterious victim. Yes, it was *your* sins; and until they shall be repented of and abandoned, you have in your heart no sentiment towards the Sufferer, but that of indifference or hatred.

Have you ever seriously meditated on the cross? Or is it a subject which you desire not to bring under consideraton? Are you in the habit of viewing it, as appropriate to those only who are numbered among his visible followers? Ah, my young friend, that it is a subject of personal interest, you will discover when a death-bed shall dissipate your idle dreams, and compel you to look back upon life, and forward to an opening eternity. When you lie trembling on the brink of your mortal existence, you will admit the accounts which conscience shall present. You will then acknowledge crimes, which you are now ready to conceal or extenuate. You will then wish for that blood which was "shed for the remission of sins." You would then give worlds for such a look as fell upon the dying thief, who sought and obtained the mercy of his Saviour. You would then barter your dearest earthly interests, for a safe passport through the gloomy portals of death.

As you cast your eye forward it falls upon that certain and terrific interview, which must take place between you and the Redeemer whom you have slighted. The vision of the future turns you back upon the past. The insupportable view of the past drives you forward to the future. Oh, what would you then give to know, that he who died on Calvary was your friend; to ascertain that his blood was shed for you; to feel beneath you his arms of mercy; and to see above you his smiles of welcome?

The day must come, when the question shall be tried. The hour must arrive, when it will be determined. Let me entreat you, now, to secure

his friendship. Let me urge you to bathe your guilty soul in his atoning blood. Listen to his invitations while they greet your ear. Throw yourself into his arms, while they are extended to receive you. If the recurrence of God's goodness, which daily makes your cup to overflow —if his continued patience and persevering mercy have failed to fill your heart with penitence; let not the appeal from Calvary, the dying love of a compassionate Saviour fall unheeded on your ear. Aggravate not the catalogue of sins, already long, dark, and fearful, by rejecting the only hope set before you, and thus crucifying afresh the Son of God. "Whatsoever shall fall on this stone shall be broken; but on whomsoever it shall fall, it will grind him to powder."

From the Maine Farmer.

"WHAT FARMERS MAY BE."

Mr. Holmes—Your interesting correspondent, "J. H. J." under the above title, in the last Farmer, lays down three distinct propositions, showing in substance that farmers *may* be the most learned, and the most influential class of men in the world. Under each proposition he has adduced several good reasons in support of them, and I can most cheerfully assent to all that he has said upon the subject. But while I am so ready to give in my adhesion to his doctrine, I am inclined to think he will find it not an easy task to induce any considerable portion of them to carry out in *practice* what he has so correctly laid down in *theory*.

The occupation of a farmer certainly requires the "most vigorous exercise of the physical powers of the body," and if you cannot induce a man to adopt that system of labor, which shall render the exercise of these powers productive of the greatest amount of ultimate good, you can hardly expect to convince him that he may become one of the most learned and influential men in the world.

If I may be permitted to advance an opinion, I will say that, judging from daily observation, it would seem that many believe the exercise of mental and physical powers have no connection in the business of husbandry, that our fathers and grandfathers *thought* all that was necessary *to think* upon the subject, and that nothing remains for us to do but work, work, work, without even *thinking* that we have power to *think*.

Therefore, if we would lay a "firm basis on which to build up their minds in wisdom and knowledge," we must first convince them that the course pursued by our fathers and grandfathers in relation to husbandry, is by no means the best course.

Convince them that in general a small farm is better than a large one.

Convince them that a little well tilled, is better than much half tilled.

Convince them that two loads of manure is better than one, and every load judiciously applied is better than a silver dollar.

Convince them that three good cows are better than half a dozen poor ones, and so of all other stock.

Convince them that raising their own bread stuff and a little to sell, is far better than "going to New York to mill."

Convince them that two blades of grass may easily be made to grow, where only one grew before.

Convince them that experiment is the mother of improvement and improvement the true source of wealth.

Convince them of these simple TRUTHS, and induce them to practice accordingly, and the work is done.

You will then bring *mind* and *body* to act in unison. You will elevate the husbandman to his natural sphere in the scale of existence. You will place him in the road to higher eminence. He will *think* for himself, he will be learned, he will be wise, he will be wealthy and influential.

May 7, 1836. CAROLUS.

From the Genesee Farmer.

LAMPAS OF HORSES.

As the season of the year is now approaching, when some people commence one of the most cruel and barbarous practices ever retained by any people, pretending to be civilized—viz: that of burning out the lampas from the mouths of young horses, we cannot refrain from making a few remarks upon that subject.

We are sensible, that some of our most enlightened readers, will say that this article should appear under the head of *vulgar errors*; but yet we have what we consider a reasonable excuse for not putting it there. Most of the articles which have been placed under this head, in our paper, are rather innocent delusions, than partaking of the barbarous; rather superstitious rites and ceremonies, appertaining to property, than any retained usages of the dark ages of barbarity. At what time or with what people this practice originated, we will not pretend to say; but there is one nation, who should either discontinue the practice, or else say less of the general diffusion of useful information; *that is America.*

The idea that the enlargement of that part of the roof of a horse's mouth, is a desease, has long been exploded by all veterinary surgeons. All horses are subject to it, between the ages of three and five, more or less, and in many cases, this soft spongy enlargement, descends to a level with the fore teeth, yet upon examining it, there will not be found any marks of tenderness or inflamation indicating disease; and if left to the operations of nature will disappear, and the horse will

have a sound and healthy mouth. Not to speak of the danger of bleeding the horse too freely, by opening the palating artery, the manner of performing the operation, is shocking to the feelings of humanity, as well as painful to the animal. It is uncalled for, and must be considered a piece of wanton cruelty.

From the Maine Farmer.

HAVESTING WHEAT.

Mr. Holmes—Allow an old and experienced farmer to say to his brother farmers, it will be much for their interest to watch their wheat crop, and be sure if the weather is suitable to cut and gather it as early as the kernel becomes full and hard. There will be no loss if cut before the kernel becomes so hard as not to shrink a little when wholly dry, if it does not measure as much—when made into flour and baked it will rise as much more as to make up the loss in measure, and the bread much better flavored. I mean this course for home use—the straw will be worth more for stock, it will be secured from storms which not unfrequently come on the latter part of August. I remember one year when our wheat crop was rendered unwholesome and almost ruined by being out, and sprouting through a long season of wet and cloudy weather in August—the straw wholly worthless except for manure.—To risk our wheat crop out, after it will answer to cut it, is daily worth no small sum to underwrite that it shall continue as good and worth as much as to day. A very few days neglect in this stage of the crop may blight all our expectations. Care is the point of security. W.

FRENCH HAY.

Many of our readers, at least, will be surprised to learn that hay from France has been imported into this country. A cargo lately arrived at Charleston, (S. C.) and sold for $1 62 per hundred. A cargo of American hay, which arrived about the same time, from Portland, (Me.) sold for $2 per hundred.—*Fredonia Courier.*

Cocoons and Raw Silk will be purchased to any extent by the Northampton Silk company.—They have contracted with Dr. Stebbins for a number of bales of raw material consigned to him by an importing house in Boston, and are ready to purchase all raw silk which may be offered. These facts should convince people of the earnestness of the business, and that our own folks should raise trees and feed worms, rather than compel our silk manufacturers to send abroad for the raw materials. In a few days we hope to have some specimens of Silk for exhibition, from the looms of the Northampton Silk company.

Novel Importation.—Five large African male asses of a nearly milk white color, were on Sunday landed from the brig Commaquid, which arrived here on Friday from Gibraltar. These animals are altogether unlike in appearance to the English ass or donkey, one of which may occasionally be seen here, and which is a diminutive little animal, and of very little use as a beast of burden. The African ass is on the contrary as large as a middle sized horse, and has been, as far back as the days of Scripture, an animal much prized for its useful qualities in Asia and Africa.

Journal of Com.

Antidote against mice.—Mr. Mackdonald, of Scalps, in the Hebrides, having some time ago suffered considerably by mice, put at the bottom, near the centre, and the top of each of his stacks of grain, as they were raised, three or four stalks of wild mint, with the leaves on, gathered near a brook in a neighboring field, and never after had any of his grain consumed. He then tried the same experiment with his cheese, and articles kept in store, and often injured by mice, and with equal effect, by laying a few leaves, green or dry, on the articles to be preserved.

To prevent Cheese having a rancid Nauseous flavor.—Put about one table spoonful of salt to each gallon of milk when taken from the cows in the evening, for the cheese to be made the next day; put the salt at the bottom of the vessel that is to receive the milk; it will increase the curd and prevent the milk from growing sour or putrid the hottest nights in summer.

Paste, made by putting acetate or sugar of lead into it, instead of the old way of mixing it with alum, keeps it from moulding, clear, and quite moist for months together. We have heard that Mr. Hodgson of Harthburn, communicated this mode of making paste to a bookbinder in Crusitor street London, in 1810: and that he has found by long experience that it is by far the most useful way he has ever heard of.

Newspapers.—Small is the sum that is required to patronise a newspaper, and amply remunerated is the patron, I care not how humble and unpretending the gazette which he takes. It is next to impossible to fill a sheet with printed matter fifty-two times a year, without putting into it something that is worth the subscription price. Every parent whose son is off from him at School, should be supplied with a newspaper. I well remember what a marked difference there was, between those of my school mates who had, and those who had not, access to newspapers. Other things being equal the first were always decidedly superior to the last in debate, and composition

at least. The reason is plain; they had command of more facts. A newspaper is a history of current events, as well as a copious and interesting miscellany, which youth will peruse with delight when they will read nothing else.—*Judge Longstreet.*

TENNESSEE FARMER.

JONESBOROUGH, SEPTEMBER, 1836.

TO THE PUBLIC.

The present volume of the Tennessee Farmer will be completed in November next. While the Editor feels under great obligations to that numerous portion of its patrons, who have not only encouraged him by the approbation of his labors, but actively exerted themselves in extending the circulation of the paper—he yet finds himself wholly unable, from the want of adequate support and of additional patronage to incur the increased expenditure, by which, and by which alone, he can be enabled to devote that portion of his time to the preparation of its matter, which is indispensably necessary, in order to render it as intrinsically valuable as he could wish. To do this, he must be relieved from the performance, in person, of that mass of drudgery unavoidably attendant on the superintendence of a printing establishment, and the publication of two periodicals, consisting, in part, of correcting proof sheets, making up mails, keeping accounts, &c. &c. This drudgery now necessarily consumes more than half of his time; he can only be relieved from it by the employment of additional aid, the expense of which the present patronage of the paper will not justify him in incurring. The Editor is very desirous of being enabled to commence the second Volume under such favorable circumstances as shall admit of his imparting to it at least all the intrinsic value within the reach of his capacity. He wishes also to accompany the Farmer with a cover, which would, at the same time, tend to protect it from injury in its transportation by mail; enable him to publish a monthly account of receipts, and to lay before his subscribers advertisements of a character interesting to them. To effect all these improvements, nothing is now wanting but such an addition to the subscription list, as would furnish the means of defraying the increased expenditure to which they would subject him. For obtaining this, he has employed a travelling agent, whose exertions, if aided by those of the friends to the work, he hopes will be successful in attaining the desired object—that aid, he hopes, will not be withheld.

Subscribers, who are yet in arrears, are requested to embrace the first safe opportunity of remitting the sums due, which, though small and inconsiderable to each, form an aggregate which would materially aid the Editor in defraying the heavy expenses necessarily attendant on the publication of the paper. Where five or more can unite, the remittance may be made by mail to the Editor, and often single subscriptions can be forwarded, by private conveyance, to some authorized agent at a distance, where there is none in the county.

THE TENNESSEE FARMER.—The August number of this most excellent periodical reached us by the last mail. The Farmer has now been in existence pretty nearly two years, and has been steadily winning upon the esteem of the public, as well, we trust, as extending its patronage. We view the Tennessee Farmer as a most excellent publication, and should be pleased to learn that the encouragement extended to it would enable the publisher to give it to his readers semi-monthly instead of monthly, as at present. It is just such a publication as most of our farmers should have, to teach them economy in the art of husbandry, and to enable them to gather two grains where only one has been secured heretofore. The Farmer costs only *one dollar* per annum—should any of our friends want it, Maj. Geo. W. Martin, of this vicinity, will, we believe, act as agent in its procurement for them—if he will not, we will.—*Trumpet of Liberty.*

[FROM THE GENESEE FARMER.

THE FARMER.

Look at the Farmer and you'll see,
If you have eyes at all like me,
The most independent of all
That dwell upon this earthly ball.

Look at the Farmer and you'll find
A person of contented mind,
Of joyful heart and generous soul,
With cash enough at his control.

Look at the Farmer and you'll say
He is the glory of the day;
Up to him, (for he's at the head,)
See all classes look for their bread.

Look at the Farmer; gently bow,
And smile to see him hold his plough,
Then retire to thy humble task,
Resolved to be a Farmer at last.

ADDITIONAL LIST OF AGENTS.

D. WORTH, North Fork, Ashe County, N. C.
J. NUTTY, Cain's Old Stand, Knox County, Tenn.
Major W. C. MYNATT, Knoxville, Tenn.
THOMAS DAVIS, Surgoinsville, E. Tenn.
STERLING COCKE, Hawkins County, E. Tenn.
Mr. PULLIAM, Parrottsville, E. Tenn.
JAMES ABERNATHE, Elkton, Giles County, Tenn.
G. A. BATTE, ditto, ditto.
JAS. L. SHOEMAKER, P. M., Estilville, Va.

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